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# Bright, Excellent, Ignored: The Contribution of Luhmann's System Theory and Its Problem of Non-Connectivity to Academic Management Research

*Evangelia Baralou, Patricia Wolf & Jens O. Meissner\**

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**Abstract:** »Erhellend, exzellent, ignoriert – Luhmann's Beitrag zur Systemtheorie und seine Nicht-Anschlussfähigkeit zur akademischen Managementforschung«. Niklas Luhmann's theory has been largely ignored in organization studies, compared to other sociological approaches like Weick's sensemaking, Giddens' structuration theory, or Latour's Actor-Network Theory. While having being applied on a number of fields, such as philosophy, sociology, theology, law and political sciences, application of Luhmann's theory is still limited in organization studies (e.g. Munro 2010). In this paper, we attempt to explain the reasons of this ignorance and limited use, focusing on Luhmann's writing style, but also on the theoretical and empirical limitations his theory poses. Believing that Luhmann's theory holds great potential to be applied to organizational studies and explain organizational phenomena, we then discuss how it could contribute to radically changing the conventional ways of studying and analyzing organizational phenomena, fostering at the same time, the debate about the value of his theory. We analyze organizations as communicative processes that continuously produce and reproduce themselves to create knowledge, make decisions, structure expectations, and redefine organizational boundaries. Finally, we address the empirical challenges of applying Luhmann's theory on organization studies.

**Keywords:** systems theory, Luhmann, connectivity of theories.

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## 1. Introduction

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Luhmann's system theory has up to now only a small impact on organization studies, compared to other sociological approaches like Weick's sensemaking (Weick 1995), Giddens' structuration theory (Giddens 1984) or Actor-Network

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Theory (e.g. Latour 1987; Schinkel 2007). This paper discusses possible reasons for this ignorance and outlines how Luhmann's system theory could contribute to radically changing the conventional ways of studying social theory and applying it on organizational phenomena (Fuchs 1988).

For this, we review extant scholarly work conducted from a system theoretic point of view and analyse why Luhmann's theory has largely been ignored or severely criticized from various theorists (Sciulli 1994; Deflem 1998; Kay 2001; Habermas 1987, cited by Bausch 2002; Mingers 2002; Thyssen 2003; Mathur 2005; Kjaer 2006). We, then, highlight the potential of Luhmann's theory to observe organizational communication processes from multiple perspectives and identify the numerous advantages of using Luhmann's system theory for understanding and explaining organizational phenomena (see further Kickert 1993; Bailey 1997; Hernes and Bakken 2003; Drepper 2005; Seidl and Becker 2006; Seidl 2007; Van Assche and Verschraegen 2008; Leydesdorff 2010). We, also, focus on suggesting possible empirical approaches and consequences for the researcher, as an objective "other" or an extended perception of ourselves.

We, mainly, build up hypotheses aimed at explaining three phenomena: First, system theory is largely ignored in organization studies, compared to approaches like Weick's sensemaking and Giddens' structuration theory. Accepting that Weick and Giddens appear to be more popular in Anglo-Saxon scholarship, we look at the system theory itself, its theoretical and empirical limitations, but also at the fact that Luhmann only published in German language. Second, a lot of scholars feel that it is a disadvantage to their studies to apply a theory, which looks at communication in systems and systemic structures, instead of people. From a western cultural point of view, we explain how the depersonalization of systems is something that leaves uncomfortable researchers and limits the theory's capacity to reproduce in the wider academic community. Third, a system theoretic point of view is largely seen as non-conductive for empirical research; a problem that Luhman (1990) himself has signified as a main risk of his approach. An empirical research using system theory would be highly vulnerable to external critique and difficult to become published in the conventional leading academic journals.

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## 2. Why Luhmann's System Theory has been Ignored

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Luhmann's work appears not to be very popular among social scientists in Anglo-Saxon scholarship (Van Assche and Verschraegen 2008; Wolf et al. 2011) for three main reasons: the first relates to the actual writing style and the fact that Luhmann only published in German language; the second relates to the skepticism produced on whether the concept of autopoiesis and the depersonalization of systems can be theoretically applied on social sciences; and the

third relates to the difficulty to empirically explore theoretical concepts, such as reflexivity and recursiveness.

## 2.1 Support, Writing Style and Language Issues

Karl Weick bases his works on social psychology and incorporates many insights and pre-works of organizational and work psychology. His works come very close to the field of organizational behavior. This school of thought has a very long tradition for organization research. Evolved at the beginnings of the twentieth century, and culminating in a first climax during the Hawthorne Studies, the organizational behavior tradition had top business school support, since its early beginnings. Also, Luhmann had his support, but he can very much be seen as a founder of the “Bielefelder Schule”, until today seen and understood as a core institution for social systems thinking. While others had strong institutional backup and were connected to already existing and more or less accepted research streams, Luhmann failed to identify and make use of such powerful sources of support.

While Luhmann’s autopoietic theory has arguably considerable potential for the study of social systems, there is a broader view that Luhmann’s theory is highly abstract and his publications difficult to read (for a summary, see Wolf et al. 2011). For Luhmann, this is what keeps his work ‘fashionable’: “he who does not comply, draws the attention” (1986, 654). Later on, Luhmann himself described his theory as “labyrinth-like” or “non-linear” and claimed he was deliberately keeping his prose enigmatic to prevent it from being understood “too quickly”, which would only produce simplistic misunderstandings (Luhmann 2005, 199). Sciulli (1994) has suggested that Luhmann’s theory is at least controversial, since abstractionism and concerted generalization to the level of system, make it difficult even to criticize his work. Mingers (2002) supports the view that Luhmann like Maturana is difficult to be interpreted, partly due to each author’s use of common words in special ways (see further Bailey 1997). Mathur (2005), later on, described Luhmann’s writing as normative, obtuse, repetitive, rigid and abstract. He claims that Luhmann’s theory suffers from the problems of verbosity, mechanistic self-discipline of thought, dependence on narrow terminological differentia and apparently mandatory analytical frameworks and conformism (ibid.). Kjaer (2006) adds that Luhmann’s theoretical elaboration failed to grasp the importance of context for the constitution of social phenomena, sharply reducing its strength.

## 2.2 Skepticism about an Autopoietic Theory

Part of the criticism Luhmann has received, stems from the fact that he was originally viewed by some scholars, as largely a Parsonian functionalist, emphasizing the notion of functionalism (see further Bailey 1997). Luhmann (1982) basically suggested that the evolution of modern societies can be seen as

a functional differentiation into self-referential or autopoietic systems. In an attempt to escape from classic functionalism, Luhmann emphasized instead the notion of self-reference (since the mid-1980s). He realized himself that referring to differentiated social subsystems to such an extent that they are considered to operate independently one from another, can only occur on the basis of a selection process determined by each system's internal criteria (Deflem 1998). In this sense, he considered social systems as cognitively open, but at the same time, operationally closed (Luhmann 1988). Luhmann's core idea then became that social systems *undoubtedly* reproduce themselves, based upon self-referential operations, i.e. by affiliating communications to communications (Luhmann 1995, 437). Again, the idea of self-reference as strictly and exclusively referring to one's self, the rather rigid way of supporting this, together with the failure of many scholars to appreciate the complexity of autopoietic theory (e.g. importance of hetero-reference, which replaced later pure self-reference) generated a lot of skepticism among organization writers about whether autopoiesis is applicable to social systems (Sciulli 1994; Mingers 2002; Thyssen 2003). For example, Fuchs (1988, 25) highlighted the failure of pure self-reference to create meaningful and concrete societal self-descriptions.

Mingers' (2002) critique more specifically condemns social autopoiesis for offering 'an incredibly abstract and reductive view of the social world and failing to give sufficient importance to the role played by human activity' (292). For him, Luhmann's alleged neglect of people and focus on communication as the basic systems unit somehow disqualifies him from serious consideration as a major social theorist (King and Thornhill 2003). Luhmann, in addition, has been criticized for not saying enough about the real world, due to his lack of interest about associations, organizations, and government that are actually at work in the world (Bausch 2002). Likewise, considering society as a closed autopoietic system, in which every communication produces further communications in ever self-reproducing iterations that take place only within the society, resulted in part of Luhmann's theory being characterized as independent of human agency, value-free, and a meat-grinder (Kay 2001; Habermas 1987; cited by Bausch 2002). For Luhmann, rational social communication is only possible in terms of formal structures that make them suitable for their environments. However, what he does not provide is a distinction between boundary and structure or a description of how communication emerges from interaction (Mingers 1995). Complexity can be reduced only through meaning (Luhmann 1990, 29) in a closed system, as society is being seen. This could be one of the reasons why Weick's theory is more popular, as it explicitly focuses attention on the interactions of people, in order to give meaning to their experience (Weick 1995).

According to Hernes and Bakken (2003), Luhmann's autopoiesis is further criticized for representing a radical departure from equilibrium based theory and differing from process-based organization theory in its views of subjectivi-

ty and action. Luhmann has been severely criticized, also by Habermas (1984, 1987) for his ideas on communication. Mainly, Habermas criticized Luhmann for separating social systems, which are composed of communication, from psychic systems which consist of consciousness, with thoughts as the elements of reproduction (Hernes and Bakken 2003), although both of them rely on the work of Parsons. However, in opposition with Parsons's ideas on consensually shared values, Luhmann highlighted the differentiation between social subsystems resulting in the creation of fully closed subsystems, in which a plurality of viewpoints is unavoidable.

### 2.3 Non-Conductiveness for Empirical Research

According to Leydesdorff (2010) what is common in Luhmann's social systems theory and Giddens's structuration theory of action is the communication of meaning, as distinct from information and an emphasis on reflexivity. The difference in the two theories lies between inter-human communication and intentional action respectively, as two different systems of reference. Despite the common denominator between Luhmann's autopoiesis and Giddens's structuration theory, Luhmann has not witnessed empirical applications, which withholds his theory at the level of pure abstraction and reduces its potential value. Mathur (2005) suggests that his theory has little to offer for the theorization of broader sociopolitical consequence, while empirically requires a vast amount of highly rigid and rather dry data. Hernes and Bakken (2003) also suggest that concepts such as reflexivity and recursiveness, pose obvious methodological complications, and neither Luhmann nor Giddens really offer any solution to applying recursive theory in empirical research. According to the authors, Luhmann makes methodological demands that could make research results uncertain and time consuming, given his insistence on relentless attention to contingencies. He demands that the external observer would always be ready to shift the focus from one connecting system to another. Kjaer (2006) adds that Luhmann's empirical analysis tends to give the impression that social systems can be viewed as detached phenomena, which are being constituted through a distinction made in free air, since Luhmann fails to systematically incorporate the theoretical concept of life world, when conducting his empirical investigations. His empirical analysis is being massively reduced, by describing an implausible and counterintuitive impression of how society operates (*ibid.*). Also, a question that remains unanswered relates to what exactly the proper unit of analysis of the social system is (Bailey 1997).

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### 3. What is Luhmann's Contribution to Organizational Studies?

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Despite the sharp criticism on Luhmann's theory, we believe that systems theory holds great potential to be applied – conceptually and empirically – to management and organizational studies. Nassehi (2005), as well as Seidl and Becker (2006), have discussed Luhmann's contribution to organizations, which they view as processes that come into being by permanently constructing and reconstructing themselves by means of using distinctions. The authors focus on specific kinds of distinctions, which are manifested in the form of decisions. Other scholars focus on the communicative processes that take place in any organization and how they may lead to creation of new organizational knowledge (Wolf et al. 2011). Doing so, however, would imply shifting the focus of analysis to systemic communication processes rather than studying single actions of individual actors. Before we discuss the contribution of Luhmann's theory to management and organization studies in detail, we would first like to provide the reader with a sketch of his theory.

#### 3.1 Luhmanns' System Theory in a Nutshell

Luhmann (1995, 1997), in his theory, suggests that communication and communicative structures can be defined as the basic element of all social systems, which include societies, organizations, and interactive systems. Society is the most encompassing autopoietic system, which comprises the totality of all communications and includes all other social systems (Drepper 2005; Luhmann 1995). Communication consists of utterance (including all physical movements, as well as speech and writing), information, and understanding (see further Morner and von Krogh 2009).

Luhmann's entire theory revolves around the concept of omnipresence and self-generation of communication. He assumes that one can only create communications out of other communications and only communications can lead to new bases for making of novel communications (Van Assche and Verschraegen 2008). In consequence, social systems reproduce themselves based upon self-referential operations, i.e. by affiliating communications to communications (Luhmann 1995). They are operationally closed: They regulate internal and external complexity (which comprises so many elements that it is impossible to relate them all) through selectivity or reduction, i.e. by constraining communication opportunities with the help of self-referential selections. A social system, according to Luhmann, emerges through communications referring to each other. In this sense, the system reproduces itself recursively out of the communications concerning the system. Communication consists of fleeting events that couple with each other, with the system's reproduction occurring via the permanent coupling of communication events. Social

systems cannot exist without autopoiesis, because it is only through interaction with their own state over time that they can uphold themselves. Luhmann further suggested that the operation of social systems can have, as a unit of analysis, the interactive construction of social meaning (Leydesdorff 2000). Any type of communication is formed within existing communication, possibly in the form of reflection to make sense of organizational events.

Social systems are understood as separated from psychic systems (individuals), because the latter are closed and reproduce themselves through consciousness or thoughts and not through communication (Seidl 2005; Seidl and Becker 2006). To social systems, psychic systems represent communication addresses, which form its communication structure (Luhmann 2000, 45). Psychic systems are the precondition for the emergence and development of social systems, because the latter are not able to observe. Social and psychic systems are, thus, *“structurally adapted to each other in a way which allows for mutual perturbation”* (Seidl 2005, 32), a mechanism of structural coupling which Luhmann calls *“interpenetration”* (1997, 378). Contact to the environment happens via structural links, which are created in resonance processes (Hernes and Bakken 2003). For Luhmann, the environment contains many things, events, living systems and even human beings, but no meaningful communications (Luhmann 1987). Thus, a society increasingly contains differentiated subsystems, as complexity increases over time (Bailey 1997).

### 3.2 Mapping the Interplay of Systems Relevant to Organization Science

A system's environment is internal to itself and not external to its own communications, answering the question whether psychic and social systems could be seen as self-referential and self-reproducing. This, in Luhmann's account, is nicely described as the supreme paradox of modern society, as it gives rise to an abundance of self-descriptions, self-deceptions and self-justifications to which the system itself is blind and which can be seen only by external observers (e.g. researchers, the media) of the system (King and Thornhill 2003). King and Thornhill, (2003) add that societal observations of or involving people may be perceived as 'triggers' or 'irritants' to societal subsystems and these subsystems may then respond by producing communications (e.g. news items, laws, hospital waiting lists, government policies or price rises).

This conceptual distinctiveness is one of the major advantages of social system theory that differentiates it from Weick's and Giddens's theory: In the latter theories, the interconnectivity between the different systems also becomes visible, but the authors still assume that individuals can intentionally change systemic structures, if they wish. Luhmann's theory points to the fact that this might not be possible and brings the coupling mechanisms between the different systems back into the focus of attention (Wolf 2011a). Its contributions to



research include insights on what happens within organizations, but also on the interconnection between organization and environment. Weick's theory is refusing to acknowledge forms of differentiation or distinct systems between society and environment (see also Vanderkerckhove 2006). In addition, a basic difference between Luhmann's theory and Weick's theory (and other process-based theories) is Luhmann's focus on the intertwining between process and structure (Hernes and Bakken 2003; Czarniawska 2005). The criticism formulated by several authors that social systems are independent of human agency, does not apply in that sense.

Applying this on *organisations*, which are social systems coupled with psychic systems, communicating in the specific form of decisions (Baecker 1995, 1998; Seidl and Becker 2006), suggests that interactions of at least two organizational members should be viewed as alternate contributions to a communication topic (see further Drepper 2005, 176). For Luhmann, individuals do not exist or have autonomy in the environment of society. Individuals do exist in the form of 'the public', 'individuals', 'reasonable men', 'rational beings' and form part of the environment for social subsystems, such as politics or law, science, economics, health or the mass media, but always as constructions of the system that is communicating about them (ibid.). Organisations use the construct of "membership" for including psychic systems, i.e. in firms the employees, as communication addresses (Luhmann 2000). Employees intentionally decide to become member of organisations and to quit membership, however, during the time of their membership, they comply with the rules of the organisation (Baecker 1995, 221). Like this, Luhmann's theory enables us to differentiate in our observations and research between the different systems that play a role in organization science: Psychic systems, interactions, organizations and society with her sub systems. Despite the above, individuals are considered by Luhmann to permanently interact with social systems and vice versa by way of the mutual adaptations that they make with each other, as they structurally couple, adjusting as system and environment to each other in maintaining their autopoiesis (Bausch 2002). Within the organizational context, individuals can communicate with other individuals, but not with social systems and social systems can communicate with each other, but not with individuals (Bausch 2002). Luhmann argues that as soon as something is recognized as communication, it is included in the system, so that people exist for and within social systems only in so far as these systems are able to communicate about them (King and Thornhill 2003).

### 3.3 Picturing the Dynamics of Knowledge Creation in Organizations

Once information is constructed by social systems, knowledge comes into play: Systemic knowledge consists of *patterns for dealing with information*, i.e. for

classifying information as new and relevant, for combining it with other information or for rejecting it as irrelevant – and in that sense, systemic knowledge is based on experiences (Baecker 1998; Wolf 2003). Luhmann emphasises that the knowledge of a social system is “(...) *a structure that enables the autopoiesis of communication. (...) It constrains the arbitrariness of opportunities to connect.*” (1996, 42, translation by the authors). More concrete, organizational knowledge becomes manifest in the organizational decision patterns. Here, we find once again a circular mechanism: Systemic knowledge drives a self-referential and simultaneously system-reproducing process (von Krogh, Roos and Slocum 1994; Morner and von Krogh 2009) because first, it determines a social systems’ selection patterns and second, it processes selected information, thereby confirming systemic knowledge or changing it, i.e. learning (Wolf 2003; Wolf and Hilse 2009). Like this, Luhmann’s sociological systems theory takes a dynamic perspective on systems.

Organizational members communicate within the organization, by selecting only a limited amount of all information available outside. Social systems are surrounded by an enormous amount of data, which can be imagined as ambient noise. They address specific filters to that noise for selecting *relevant* data. These filters represent experience based expectations about what kind of relevant data would be available in the environment. The organization is considered for them as a zone of reduced complexity, compared to the exterior environment, which is complex and chaotic. All self-organizing systems maintain themselves by means of expectations. Information is constructed by social systems out of data which match systemic expectations and thus make a difference between the situation before and after their occurrence (Bateson 1972, 459). For example, for a company listed at the stock market, data on current stock prices are more likely to make a difference than data on opening hours of the museum in another town (Wolf and Hilse 2009).

A learning organization being a social system can be considered to permanently re-producing knowledge through interactive and situational knowledge creation processes (Morner and von Krogh 2009). Using the concept of knowledge connectivity that has its origins in Luhmann’s (1995) systems theoretical concept of ‘communication connectivity’, we can suggest that learning has to connect to previous learning, in order to guarantee the survival of the learning organization as a social system. New knowledge refers to past knowledge and to potential future knowledge (Luhmann 1990). As Luhmann (2000, 152-4) suggested that documentation enables a selective re-utilization of an irretrievable past, an organization’s systemic memory lies in documentation and archiving of past projects (see further the work of Morner and von Krogh, 2009 on open-source software projects). Talking about an organizational problem, generates answers to this problem, thereby determining the further focus of communication and direction of organizational development. This is also discussed from a dialogical perspective in Tsoukas’ theory on knowledge crea-

tion who describes how new distinctions may be developed because practitioners experience their situations in terms of already constituted distinctions, which lend themselves to further articulations (Spencer-Brown 1969; Tsoukas 2009).

### 3.4 Analysing the Role of Past, Present and Future in Decision Making

In relation to the above, Becker and Haunschild (2003) have suggested that Luhmann's approach (mainly earlier work on public administration, Luhmann 1973) can provide a distinctive process-centered perspective on social phenomena, such as investigating the effects of boundaryless careers on the functioning of organizations. While this may seem quite specific, an interesting application the authors suggest of the conceptualization of organizations as autopoietic social systems can be applied on a specific kind of communicational element, which is decision (Luhmann 2000). According to Becker and Haunschild (2003) what gives organizational communication a specific shape is the struggle to hide the obvious arbitrariness of what is done – an arbitrariness each single decision alludes to, because it applies a double distinction-and-indication. While the authors suggest that in contrast to other communications, decisions are informative about other ways of communicating that have not been selected; this can be applied to understand further how organizational communication takes place in the form of decisions. Decisions, as communicational elements, can be analyzed in relation to past decision and in anticipation of future decisions (see also Seidl and Becker 2006). Hence, everything that is done in organizations is exposed to comparison, to a reinforced obligation to provide justification. This reminds of Bakhtin's (1986) analysis of dialogicality, in which he suggests that an utterance is always created and formed as a response to a previous utterance or utterances and that it is always created, formed and shaped in anticipation of a responding utterance.

### 3.5 Redefining Organizational Boundaries

A challenging contribution and at the same time contradiction of Luhmann's theory of autopoiesis could be on the discussion of traditional organizational boundaries and how these are redefined in the era of open innovation. Here, Luhmann's suggestion that 'the world is constituted by the differentiation of meaning systems, by the difference between system and environment' (1995, 208), that which designates the negative correlate of the system, or 'simply "everything else"' (ibid., 181), can be understood as a system establishing its consistency by differentiating itself from its 'environment' (Glyn 2004). The system then can be understood as autopoietic insofar as it manifests the 'recursive application of its own operations' (Luhmann 198, 336). No system can

find an edge, and the more a system refers to itself, the more it serves to underline an essential lack of foundation (Glyn 2004).

Considering the redefinition of traditional organizational space boundaries given the development of information and communication technologies that allows the explosion of virtual or at least for agile and more open to users organizations, without clear cut boundaries, we can immediately witness another paradox worth exploring further. While limits are unthinkable within the Luhmannian paradigm of a continuous logic of differentiation, Glyn (2004) has already raised the question regarding the lack of immaculate origin of the system, drawing on Staheli's argument regarding the 'self-referential system functioning as a metaphor for the impossibility of the origin' (Staheli 1995, 19). Even if one overcomes this paradox, in recently redefined organizational boundaries where users for example become developers (von Hippel 2005) or even the last workers on the production line (Leadbeater 2000), how can a system establish its consistency?

The coherence of a system depends upon its ability over time to differentiate itself from, but also to engage with and interpret its environment in terms of its code of organization (Glyn 2004). For example, Luhmann described the legal system as a highly autonomous and both closed and open. Law can only determine what is and is not law, decide and maintain its own boundary in its own operation or in the constant reproduction of its own elements. These elements can be thought of as case studies, constitutional interpretation, protocol, preceding judgments and so on; all of which help to reinforce coherence and patterning. A system of law requires, in the first place, a basic code for distinguishing what is lawful and what is not. But this immediately presents a paradox, because the legal/illegal distinction is not something that can be determined outside the system of law (ibid.). Luhmann has argued that any attempt to represent what is beyond 'meaning-constituting' systems is in essence part of the system and possibly leads to its extension. From an open innovation perspective, in which there are no basic codes, for distinguishing who is part of the system and who is not and since this distinction is continuously redefined, but can only be made from within, Luhmann's theory can represent an interesting contradiction.

Mingers (1995) while addressing the question how an autopoietic system can be organizationally closed while interacting with its environment, referred to the notion of *structural coupling*. In Mingers' words (1995, 35), an autopoietic system is realized by a specific structure, and the changes the system can undergo are determined by the structure so long as autopoiesis is maintained. While the environment does not determine the changes in the autopoietic system, it can select outcomes from those made possible by the system's structure. Thus, continued autopoiesis can lead to a structure in the organism which is suitable for its environment (see further Bailey 1997).

### 3.6 Exploring Double Contingency

Another possible application of Luhmann's theory is suggested by Leydesdorff (2010) who proposes a recombination of Luhmann's theory with Giddens's structuration theory into a theory about the structuration of expectations, interactions, organization, and self-organization of intentional communications. The author suggests that Giddens's structuration theory focuses on reflexivity as constitutive of human action, while Luhmann's theory asks how reflexivity can be codified at a supra-individual level. While Luhmann (1984) proposed a theory of social systems, in which the communication of meaning is considered as the distinguishing characteristic of a social system, Giddens's proposed the concept of structuration and related this concept from its very origin to the double hermeneutics operating in intentional inter-human communication. According to Leydesdorff (2010), this is the difference between action as an observable practice versus interaction based on intersubjective understanding.

For Giddens, a double hermeneutic can be achieved, because one can understand someone else as another participant in the communication, in addition to observing and interpreting the behavior of the other. For Luhmann, double contingency can be achieved, because 'persons' come into existence as social systems in situations of double contingency, and then develop subsequent systems, such as roles, programs, values, etc., by experimenting with expectations (Bausch 2002). Double contingency is explained by the author, as a case in which ego tries to predict what alter will do, when he or she finds out that alter is also trying to predict what ego will do. When ego finds out that alter is unpredictable, he or she recognizes that alter is intelligent and free. Likewise, he or she recognizes that himself or herself is also contingent, intelligent, and free and through this mutual recognition, 'persons' are formed (Bausch 2002). For Luhmann, all culture and civilization are built upon this recognition. It would be interesting from an organization theory point of view to explore intentionality – although itself is a person-centered term – in every day organizational phenomena through communicational practices and relate it to the concept of double contingency to explore if and how it can be applied as a reflexive practice.

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## 4. Dealing with Methodological Challenges

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One of the methodological key challenges for empirical scholars, applying a system theoretic point of view in their management studies, becomes that Luhmann's theory and perspective of systems forces them to engage with a fundamental, almost existential, dilemma: is what we think we observe really observable? Since its early beginnings, system theory has stated that the observed tells always more about the observer than the observed. Thus, the dis-

tion between observed/not-observed is always a distinction of the observer's scope and another observer could always draw other conclusions (v. Foerster 1998). Since observers are closed (psychic) systems, the influence of an observer is reduced to pure irritation (respectively 'perturbation' (Luhmann 1984)) or 'deparadoxification' (Schoenenborn 2011). Luhmann considers the dialectic that is formed between the subject-object to be of great significance, in his quest to discover the nature of the systems under examination, by considering the observer as constituent of the system (re-confirmed by Baecker 2006). In so doing, Luhmann differentiates between adjoining systems by applying specific methodological rules appropriate to the system in question. Reflecting on Luhmann's sociological systems theory, Habermas (1987, 385) acknowledged that Luhmann's theoretical focus on meaning yields novel, not merely objectivating but objectivistic descriptions of subtle phenomena of the life-world (see further Leydesdorff 2000). 'Objectivistic', in this context, means that Luhmann is behaving as a super-observer who claims to be able to detach himself (like a biologist) from the meaning, provided by the participants in the systems that he observes (ibid.). This appears to be the reason Habermas characterizes Luhmann's sociological systems theory, as a type of 'metabiology'.

For many scholars, having chosen to adopt a methodology following Luhmann's theoretical perspective, the task may appear daunting. Despite of the fact that Luhmann's theoretical perspective can be briefly described, the methodological lens remains unspecified. An easier route is to avoid his "trivia" and, instead, make an "opportunistic study of everything" (see Keiding 2011). For the scholar then, personal implications arise from the methodological choices he or she makes and will, in turn, affect the methodological process itself. For example, the role of empirical researchers becomes to move from first order observation (an individual researcher's description of what happened) to processing of sense making in 'second order observation' (von Foerster 1998), which are patterns between two or more actors in a way that systemic structures emerge and sustain (Knorr-Cetina 1989; Weick 1995; Gentile 2010).

An increasing number of authors use a "systemic lens" to understand and conduct research. The perspective of a systemic researcher is *situated and self-constructed* (Mayr and Siri 2011), thus impacting upon what researchers can observe and recognize about the phenomenon they study (Tuckermann and Rüegg-Stürm 2011; Von Groddeck 2011). Keiding (2011) also argues that observations may say more about the observer than about the situation itself, as *observation is always participation*. Von Groddeck (2011), backed up by Spencer-Brown (1969), describes observation practices as a *three-folded form* with a marked and an unmarked space (i.e. what is in the focus and what is not in the focus of the empirical investigation) and the distinction itself. Tuckermann and Rüegg-Stürm (2011) support the view that Luhmann's social system theory (1995) provides a useful grounding for studying recursive dynamics.

They analyze how a “research system” emerges from relationships between the system of the researchers (for example, a research project) and the system of the researched (for example, an organization) as a “third system”. This research system reproduces itself through relational episodes. Similarly, Wolf (2011b) describes the dynamic interactions between these three systems, which can have a strong impact on the research question and the research design. The research design selected in a (systemic) study reflects the dynamic interactions between the systems under scrutiny. Often, research designs are adapted or amended during the research process to the extent that change is evolutionary in its nature (Wolf 2011b; Meissner and Sprenger 2011). Gathering data from multiple (sub system) perspectives provides an approach for accommodating the comparative nature of systems theory into the design of a study. Requirements for gathering data represent the perspectives of actors from a variety of sub systems. As social systems theory also implies, much data gathering is conducted through observing communication and decision chains (Besio and Pronzini 2011).

Despite the potential theoretical and methodological applications of Luhmann’s theory, there is so far a limited number of studies referring to systems theory on organizations. However, Luhmann’s theory gradually appears to attract research interest (e.g. Baecker 2006; Seidl 2006; Wolf et al. 2011; Schoenenborn 2011). Peetz, Lohr and Hilbrich (2011) have looked at the increasing commoditization of education; Mayr and Siri (2011) into the functional role of management in organizations; Gentile (2011) into collective patterns of sense making that impact the implementation of a corporate volunteering concept; Klein (1994) into organizations displaying recursive symmetries between scale levels, which tend to repeat a basic structure at several levels; Wolf (2011b) into the impact of the implementation of a knowledge management concept on organizational decision structures; Meissner and Sprenger (2011) into the design of an innovation process and dynamics of organizational renewal. In accordance to systems theory, authors acknowledge that their findings might have a potential for irritation, for stimulating reflection and for providing orientation in a complex transformation process, leaving it to the organization to make use of their findings (John and Rückert-John 2011; Tuckermann and Rüegg-Stürm 2011; Wolf 2011b). There is also an increasing body of literature complementing Luhmann’s social system theory with related theoretical approaches. Meissner & Sprenger (2011) explicitly expand on Luhmann’s theoretical perspective by complementing it with a social constructionist approach.

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## 5. Discussion

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Our paper aimed to explore why Luhmann’s theory has been largely ignored up to now and highlight its potential contribution to organizational studies. Such a

task may appear daunting for a theorist whose writings are quite complex and comprehensive, but at least this paper aimed to suggest the large potential of Luhmann's work. Bailey (1997) has largely encouraged writers, especially in the English-speaking world, to begin to fully appreciate the value of Luhmann's work that is so voluminous, ambitious and, at the same time, highly complex.

In order to achieve the full benefit of understanding Luhmann's writings, we need to clarify: In our attempts at observing management in organizations, what do we observe, an objective "other" or an extended perception of ourselves? We see that the findings of system theoretical studies have the potential to support practitioners/ managers in translating their own observations into distinctions relevant for their organization. Second order observation by researchers provides practitioners with an input that can potentially stimulate reflection, as it visualizes how sense making patterns in organizations are created and constrained. For the organization and its members, these patterns usually constitute a blind spot. The strength of systems theory lies in the opportunity to not only observe social practices, but also to reconstruct the different systemic logics that determine the particular situation. For example, within organizations, humans communicate and make decisions based upon patterns, seeing the world both visually and conceptually as a series of spot observations, filling in the gaps from previous experience (see also Seidl and Becker 2006). Humans will rationalize decisions in whatever way is acceptable to the society or system to which they belong.

We can conclude that Luhmann's work is of high relevance for understanding and explaining organizational phenomena – thus the "bright and excellent" in the title of this paper are explained. But our initial question lasts: Why is Luhmann still ignored and treated as a stranger in modern organizational studies? Or, the other way around, why is he treated as an exotic scholar among the mainstream of organization sciences researchers? Our paper outlines three main hypotheses about causes for this ignorance:

Firstly, system theory is largely ignored in organization studies compared to approaches like Weick's sensemaking and Giddens structuration theory. One reason might be that Luhmann – other than Weick – failed to identify and make use of sources of support in the scientific community. Besides that, the body of internationally spread literature is relatively small. Luhmann himself only published in German; he was so much involved in structuring and crafting his social systems approach that the awareness and time for a wider dissemination were missing.

Secondly, many scholars feel that it is a disadvantage to their studies to apply a theory which looks at communication in system and systemic structures instead of individuals. We highlighted before, that in Luhmann's system theory, individuals are 'reduced' from a holistic person to a social address for communication. The system itself is set up by psychic systems, but the psychic



systems themselves are of no relevance for the social system as an entity. However, this 'reduction' could also be understood as 'extension' in terms of the enrichment of the whole system. While this approach of thinking might be easier to understand for people from the Far East due to their culture coined by Laotian thinking, the depersonalization of systems could be an argument for an isolated, functionalistic and structure-determined theory in the Western world. So, which scholar, manager, student or politician should like the idea? And, if the idea is not preferred, who should spread it? Maybe, Luhmann's chosen theoretical setup was perceived as cold, isolated and functionalistic by itself – leading to less sympathy towards the concept and thus, limiting its capacity to reproduce in the wider academic community.

Thirdly, a system theoretic point of view is largely seen as non-conductive for empirical research; a problem that Luhmann (1990) himself has signified as a main risk of his approach. Asked the question "What is a typical method to be applied in system theoretic research?", the scholar has to answer "Well, it depends." System theoretic thinking and research are based on the observation and interpretation of communicative artifacts. In the strict sense of Luhmann's theory, those communication acts vanish in the moment they occur. What can be observed by the researcher is only the communicative trace that is left behind. Or, in other words, a scientist is banned from the study of actual practice to the perspective of historic research. And he is only able to study the shadows of past actions. And even those traces of communication have to be interpreted by two or more researchers to create an adequate degree of social validity. This makes research enormously time consuming and costly. Besides this, it makes the endeavor of management and organization research relying on social sciences methods highly vulnerable to external critique. Since the academic system, as a subsystem itself, follows the leading distinction truth/non-truth and main communications are processed via academic journals, it means a high degree of risk for a scholar to rely on such a theoretical resource. Another facet of using a system's theory perspective is that methodological choices always imply an epistemological predefinition. By applying system theory, a researcher states that the world is understood from the interpretive paradigm of newer social sciences. For many mainstream researchers in organization and management studies this approach cannot be satisfying.

However, the Western self-perception presumably has changed by means of social media and Luhmann's ideas have been developed in a much lesser networked world. Thus, his works will be read and perceived differently compared to twenty years ago. Especially the actual crises developments in the world society's subsystems economy and technology (subprime crisis, credit crunch of the US and Europe, Transocean drilling hole crisis, Fukushima nuclear catastrophe and its consequences for the Japanese economy, the Revolution of the Arabic world etc.) show, that we need a different understanding of the communicative functioning of the networked world. This understanding has to follow

the ‘new’ paradigm of quantum mechanics with the basic understanding, that nothing, that is observed, remains the same. Luhmann’s theory could handle this challenging endeavor better than other theories. Whether this statement seems to us to be true for the last century, it has to prove its adequacy for the hyper-networked world.

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